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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,812	03/26/2001	John R. Douceur	MS1-734US	7817
22801	7590	12/21/2004		
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			EXAMINER FIELDS, COURTNEY D	
			ART UNIT 2137	PAPER NUMBER
DATE MAILED: 12/21/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/817,812

**Applicant(s)**

DOUCEUR ET AL.

**Examiner**

Courtney D. Fields

**Art Unit**

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1-4</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Claims 1-44 are pending.
2. The Information Disclosure Statements respectfully submitted on 09 October 2003, 14 February 2004, 05 August 2004, and 14 October 2004 have been considered by the Examiner.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
2. Claims 1-29,32-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Etzel et al. (U.S. Patent No. 6, 577, 734). Referring to the rejection of claims 1,14, and 29, Etzel et al. discloses a method, system, and computer-readable media receiving an access control entry corresponding to a file and including a symmetric key encrypted with a public key, checking whether an access control entry to symmetric key mapping exists in a key cache, and obtaining the symmetric key from the key cache if the mapping exists otherwise decrypting the encrypted symmetric key using a private key corresponding to the public key in Column 7, lines 7-45.

Referring to the rejection of claims 2 and 15, Etzel et al. discloses the claimed limitation wherein the public key and the private key are both part of a public/private key pair associated with a user in Column 4, lines 35-42.

Referring to the rejection of claims 3, 16, and 32, Etzel et al. discloses the claimed limitation wherein receiving an access control list including a plurality of access control entries, selecting one of the plurality of access control entries that corresponds to the user, and using at the access control entry, the selected one of the plurality of access control entries in Column 6, lines 23-46.

Referring to the rejection of claims 4, 17, and 33, Etzel et al. discloses the claimed limitation wherein if the mapping does not exist, then creating, after decrypting the encrypted symmetric key, a new mapping in the key cache that maps the access control entry to the symmetric key in Column 6, lines 23-42.

Referring to the rejection of claims 5, 18, and 34, Etzel et al. discloses the claimed limitation wherein generating a file including a key cache, encrypting the generated file using the private key and storing the encrypted file in Column 7, lines 9-16.

Referring to the rejection of claims 6, 19, and 35, Etzel et al. discloses the claimed limitation wherein generating a file including the key cache, encrypting the generated file with another symmetric key, generating a new access control entry corresponding to the generated file, encrypting the other symmetric key with the public key and storing both the encrypted other symmetric key and an identifier of a user corresponding to the key cache in the new access control entry in Column 8, lines 5-26.

Referring to the rejection of claims 7,20, and 36, Etzel et al. discloses the claimed limitation wherein obtaining a key cache in encrypted form from a remote storage device, decrypting the key cache using the private key, and using as the key cache the decrypted key cache in Column 5,lines 35-66.

Referring to the rejection of claims 8,21, 25, and 37, Etzel et al. discloses the claimed limitation wherein decrypting using the private key, a symmetric key corresponding to the key cache, and decrypting, using the symmetric key corresponding to the key cache, the key cache in Column 4, lines 9-19.

Referring to the rejection of claims 9 and 22, Etzel et al. discloses the claimed limitation wherein the checking comprises indexing into the key cache based on the encrypted symmetric key of the access control entry in Column 5, lines 20-34.

Referring to the rejection of claims 10 and 23, Etzel et al. discloses the claimed limitation wherein the checking comprises indexing into the encrypted key cache based on a user name included in the access control entry in Column 3, lines 49-65.

Referring to the rejection of claims 11 and 41, Etzel et al. discloses the claimed limitation wherein removing one mapping from the encrypted key cache while leaving one or more other mappings in the encrypted key cache in Column 8, lines 5-26.

Referring to the rejection of claim 12, Etzel et al. discloses the claimed limitation wherein removing the one mapping if the one mapping has not been accessed within a certain time frame in Column 4, lines 38-67, Column 5, lines 1-7.

Art Unit: 2137

Referring to the rejection of claim 13, Etzel et al. discloses the claimed limitation wherein removing the one mapping if the encrypted key cache is already full and a new mapping is to be saved in the encrypted key cache in Column 6, lines 23-42.

Referring to the rejection of claim 24, 28, 40, and 43, Etzel et al. discloses the claimed limitation wherein one or more computer-readable memories containing a computer program that is executable by a processor in Column 8, lines 62-67, Column 9, lines 1-39.

Referring to the rejection of claims 26 and 38, Etzel et al. discloses the claimed limitation wherein using the private key to decrypt the symmetric key corresponding to another file if the access control entry corresponding to the other file is not included in the encrypted key cache in Column 5, lines 8-65.

Referring to the rejection of claims 27 and 39, Etzel et al. discloses the claimed limitation wherein storing in the encrypted key cache, a mapping of the access control entry corresponding to the other file to the decrypted symmetric key in Column 5, lines 66-67, Column 6, lines 1-42.

Referring the rejection of claim 42, Etzel et al. discloses a method for accessing a key cache that maintains a plurality of access control entry to symmetric key mappings corresponding to a plurality of files accessible to a user in a distributed file system, wherein each of the plurality of files of mappings identifies a symmetric key that can be used to decrypt a file corresponding to the mapping, generating an encrypted file that includes a key cache and that is encrypted using a symmetric key, encrypting the symmetric key using a public key corresponding to the user, storing the encrypted

symmetric key in an access control entry and storing the encrypted file and the access control entry corresponding to the encrypted file in the distributed file system in Column 3, lines 3-65 and Column 4, lines 9-34.

Referring the rejection of claim 44, Etzel et al. discloses a system for storing a plurality of access control entry to symmetric key mappings, retrieving an access control entry corresponding to a requested file, means for comparing the retrieved access control entry to the plurality of access control entry to symmetric key mappings for determining whether any of the plurality of mappings match the retrieved access control entry and obtaining a symmetric key to be used to decrypt the requested file if one of the plurality of mappings matches the retrieved access control entry, decrypting the symmetric key, using a private key corresponding to the public key used to encrypt the symmetric key in Column 4, lines 35-67 and Column 5, lines 1-34.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Claims 30-31 are rejected under 35 U.S.C. 103(a) as being obvious over Etzel et al. in view of Douceur et al. (U.S. Pub. No. 2002/0095590).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an

invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Etzel discloses an encrypted key cache system comprising a server as a means for storing access control entries. Etzel does not explicitly disclose a serverless distributed file system. Referring to claim 30, Douceur et al. discloses the claimed limitation wherein the system is a computing device in a serverless distributed file system in Column 2, Section 0031 and Column 3, Section 0042. Referring to claim 31, Douceur et al. discloses the claimed limitation wherein the system is a computing device in a centralized distributed file system in Column 3, Section 0033. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Etzel et al.'s key cache with Douceur et al.'s exclusive encryption. This will enable the security of data stored by a user on a computer against



another user by implementing encryption used upon a serverless and centralized distributed file system.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dujari (U.S. Patent No. 6, 233, 606) discloses a method and system for automatic key cache synchronization.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Application/Control Number: 09/817,812

Page 9

Art Unit: 2137

  
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December 8, 2004

  
Andrew Caldwell